S/183/63/000/001/001/004
B101/B186

AUTHORS: Sheyn, T. I., Katorzhnov, N. D., Kudryavtsev, G. I.

TITLE: Fractional composition of polyamides synthesized at an interface under static conditions

PERIODICAL: Khimicheskiye volokna, no. 1, 1963, 17-19

TEXT: A film formed at the interface of sebacyl dichloride dissolved in chloro benzene and hexamethylene diamine dissolved in water containing $NaHCO_3$. This was drawn out without mixing the solutions, and its fractional composition was tested. Polymers with a degree of polymerization (DP) between 87 and 143 were obtained by changing the concentration of the sebacyl dichloride from 8 to 10% by weight, and that of the hexamethylene diamine from 1 to 5% by weight. Comparison with the fractional composition of polycaprolactam polymerized in the melt showed that the DP covers a wider range on interfacial polymerization than on melt polymerization, but the fractions with a DP of 50-200 predominate in both polymers. The interfacially polymerized polymer is characterized by fractions with DP up to 600, but the content of highly polymerized

fraction (DP>200) is only 18-19%. The maximum on the differential curve lies at lower DP for the interfacial polymer than for polycaprolactam. Similar results were obtained by comparing the interfacial polymer with polyhexamethylene adipic amide produced by thermal polymerization of AH salt.. Polyhexamethylene adipic amide had an average DP of 184 with a maximum at DP=105, while the respective values for the interfacial polymer were 143 and 75. Conclusion: Interfacial polymerization at first proceeds irreversibly at a rate corresponding to the range of ionic reactions, so that no secondary reactions occur. After formation of a monomolecular layer, the rate of polymerization depends on monomer diffusion through the layer. Due to the changes in concentration, the rate of diffusion finally becomes commensurate with the rate of termination. The polymer chains formed in the last stage therefore differ from those formed initially. There are 2 figures.

ASSOCIATION: VNIIV

SUBMITTED: March 4, 1962

S/081/63/000/001/061/061
B144/B186

AUTHORS: Katorzhnov, N. D., Voitelev, Yu. A., Biber, B. L.

TITLE: Rapid method for differentiating polyamide fibers

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1963, 566, abstract 1T295 (Tekstil'n. prom-st', no. 8, 1962, 72-77)

TEXT: Improved schemes and rapid methods are suggested for determining all known polyamide fibers (including Enant and Pelargon), based on analyzing their solubility in different solvents. Methods are recommended for the qualitative and quantitative determination of Caprone and Anid fibers mixed with cotton, wool and viscose staple fibers. [Abstracter's note: Complete translation.]

Card 1/1

VOITELEV, Yu. A., mladshiy nauchnyy sotrudnik; KATORZHNOV, N. D.

Quantitative analysis of synthetic heterochain fibers. Tekst. prom. 23 no.3:72-80 Mr '63. (MIRA 16:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennykh volokon (VNIIV) (for Voitelev). 2. Nachal'nik laboratorii Vsesoyuznogo nauchno-issledovatel'skogo instituta iskusstvennykh volokon (for Katorzhnov).

(Synthetic fibers)
(Chemistry, Analytical—Quantitative)

KATORZHNOV, Nikolay Dmitriyevich; VOITELEV, Yuriy Aronovich; VERBITSKAYA, Ye.M., red.; PYATNITSKIY, V.N., tekhn.red.

[Identification of synthetic fibers; qualitative and quantitative analysis of synthetic fibers in the textile industry] Raspoznavanie khimicheskikh volokon; kachestvennyi i kolichestvennyi analizy khimicheskikh volokon v tekstil'noi promyshlennosti. Moskva, Gizlegprom, 1963. 107 p. (MIRA 16:12)
(Textile fibers, Synthetic--Analysis)

KLIMOVA, V.S.; KATORZHNOV, N.D.; KUDRYAVTSEV, G.I.; BESCHASTNOV, A.V.

Rapid method for the simultaneous determination of the monomer and moisture content of polycaprolactam. Khim.volok no.6:64-65 '63. (MIRA 17:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna.

KATORZHNOV, N.D.; VOITELEV, Yu.A.; PROSYANIK, Yu.V.

Regulators of the molecular weight of polycaprolactam and action mechanism. Khim. volok. no.6:23-26 '64. (MIRA 18:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna.

YEGOROV, Yu.A.; YAKUBOV, N.I.; KATORZHNOV, N.D.

Manufacture of pipes with a small diameter. Khim. volok. no.4:67-68 '64. (MIRA 18:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna.

KATORZHNOV, N.D.; KUDRYAVTSEV, G.I.; KUZINA, Ye.F.; LAZUTKINA, T.P.

Studying the continuous process of the production of polycaprolactam. Khim. volok. no.4:20-22 '65. (MIRA 18:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna.

SAKHNOVSKIY, N.L.; YEVSTRATOV, V.F.; SMIRNOVA, L.A.; KATOV, V.I.

Evaluation of the wear resistance of tread rubbers through the testing of tires in actual service. Kauch.i rez. 19 no.1:10-15 Ja '60. (MIRA 13:5)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.
(Tires, Rubber--Testing)

Katov, Ye. I.

USSR/Optics - Optical Methods of Analysis. Instruments. K-7

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 13107

Author : Katov, Ye.I.
Inst : -
Title : Spectral Investigation of the Interaction of Benzidine with the Surfaces of Bentonite, Alumo-Silica-Gel, and Silica-Gel.

Orig Pub : Optika i spektroskopiya, 1956, 1, No 4, 500-506

Abstract : The absorption of adsorbed molecules of benzidine and of their transformation products on the surfaces of bentonite, alumo-silica-gel, and silica-gel in the region of 2500 -- 10,000 A was measured in diffusely reflected light with a SF-4 spectrophotometer. Several types of interactions between benzidine and the surfaces of the adsorbents were observed: (1) Physical adsorption (maximum of absorption at 300 A). (2) Formation of an intermediate ion $[\overline{H}_2N\ (C_6H_4)\ (C_6H_4)\text{-}NH_2]^+$ (maxima 4500, 7600, and 8500 A) upon

Card 1/2

KATOVSKIY, I. [Katouski, I.] (pochtovoye otdeleniye Gorki, Mstislavskogo rayona)

A letter carrier. Rab. i sial. 39 no.9:8 S '63. (MIRA 16:11)

KATOWSKI, Edward, mgr.

Undertone index the prognostic index of the freight market. Tech gosp morska 11 no.3:74-75 '61.

1. Wyzsza Szkola Ekonomiczna, Sopot.

KATRAKOVA, O.S.

Method of paraffin therapy. Med. sestra, Moskva No.1:31-32 Jan 52.
(CLML 21:4)

1. Nurse. 2. Of the Sanatorium imeni Semashko of the Therapeutic Sanitary Administration, Ministry of Public Health Ukrainian SSR.

KATRANDZHIEV, K.

Investigation on antagonistic effect of Bacterium bulgaricum and Streptococcus thermophilus on Mycobacterium tuberculosis. Izv. mikrob. inst., Sofia 2:117-145 1951 (CLML 21:3)

1. Doctor, Specialist of the Main Veterinary Hygiene and Control Institute, Sofia.

KATRANDZHIEV, Kosta, D-r., starshi nauchen sutrudnik

Activity and variability of Bacterium bulgaricum and Streptococcus thermophilus in cultures invarious temperatures. Izv.mikrob.inst., Sofia 5:341-378 1954.

1. Pri N. I. V. Kh. K. I. - Sofiia.
(LACTOBACILLUS,
bulgaricus, eff. of temperature on activity & variability)
(LACTOBACILLUS,
thermophilus, eff. of themperature on activity & variability)

KATRANDZHIEV, K.

"Microbiological studies of raw cow's milk in the Serdika Milk Combine." p. 155-64

IZVESTIIA. SERIIA EKSPERIMENTALNA BIOLOGIIA I MEDITSINA, Sofiia, Bulgaria, No. 2, 1957.

Monthly List of East European Accessions Index (EEAI), The Library of Congress, Volume 8, No. 8, August 1959.

Unclassified

KATRANDZHIEV, K.

BULGARIA / Microbiology. Sanitary Microbiology. F-4

Abs Jour: Ref Zhur-Biol., No 16, 1958, 72053.

Author : Katrandzhiyev, K.; Iotov, Y.; Ikonomov, L.; Todorov, D.
Inst : Not given.
Title : Comparative Microbiological Investigation of Cow's Milk.

Orig Pub: Solskostop. misol, 1957, 2, No 10, 630-633.

Abstract: No abstract.

Card 1/1

BULGARIA

Dr Kosta KATRANDZHIEV [Affiliation not given]

"Impressions of the Zooprophylactic Experimental Institutes in the Regions of Lazio and Toscana in Italy."

Sofia, Veterinarna Sbirka, Vol 59, No 11, 1962; pp 24-26.

Abstract: Description of the study and research activity of the institutes in question, mainly of the central institute in Rome-Cappanole directed by Prof. Zavalli. Names and tasks of principal investigators are listed with brief comments. Photograph of building, architectural plan of virology laboratory.

1/1

DESHKO, Yu.I.; KREYMER, M.B.; MAKHNOVICH, A.T.; KATRANOV, I.G., spets.red.; TABUNINA, M.A., tekhn. red.; SHERSTNEVA,N.V., tekhn. red.;TEMKINA,Ye.L., tekhn.red.
[Materials on accident prevention and industrial hygiene in the building materials industry]Sbornik materialov po tekhnike bezopasnosti i proizvodstvennoi sanitarii v promyshlennosti stroitel'nykh materialov. Moskva, Gosstroiizdat, 1962. 634 p. (MIRA 15:11)
(Building materials industry—Hygienic aspects)

KATRANOVA, K.E., vrach

A remarkable case of compensatory adaptability in a blind man without hands. Oft.zhur. 13 no.5:303-306 '58 (MIRA 11:10)

1. Iz Ukrainskogo tsentral'nogo nauchno-issledovatel'skogo instituta ekspertizy trudosposobnosti i organizatsii truda invalidov.
(BLIND--PRINTING AND WRITING SYSTEMS)
(AMPUTEES--REHABILITARION, ETC.)

SHLAYEN, S.P.; KATRANOVA, K.V.

Otogenous psychoses. Vest. oto-rin. 17 no.5:44-47 S-O '55.
(MLRA 9:2)

1. Iz Vinnitskoy psikhiatricheskoy bol'nitsy imeni A.I. Yushchenko (konsul'tant oto-laringolog S.P. Shlayen, zaveduyushchaya psikhiatricheskim otdeleniyem K.V. Katranova)

(PSYCHOSES, etiology and pathogenesis,
ear dis.)
(EAR, diseases,
causing psychoses)

ACCESSION NR: AR4015141 S/0124/63/000/012/V055/V055

SOURCE: RZh. Mekhanika, Abs. 12V410

AUTHOR: Katranova, L.A.

TITLE: The determination of critical stresses for a noncentrally stressed П -bar from the condition of local loss of stability

CITED SOURCE: Nauchn. tr. Leningr. lesotekhn. akad., vy*p. 102, 1963, 257-264

TOPIC TAGS: critical stress, non-central compression, local stability loss, stability loss

TRANSLATION: To test the stability of the elements of a non-centrally stressed П-bar, the author used the energy method along the length of the bar between diaphragms. The stress-strain diagram of the material in the intermediate section between the proportionality limit $\sigma_п$ and the yield point $\sigma_т$ follows a second-degree parabola. It is assumed that the packets of vertical sheets in the cross sections between diaphragms in the transverse direction bend as cubic parabolas, the packets of horizontal sheets in the transverse direction bend in one or two

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half-waves, while the potential energy of bending deformation of each of the inside corners is determined as for the bar. By equating the potential energy of all the elements to the work of longitudinal forces with the loss of stability, the author obtains an equation which establishes the dependence of the critical stress σ_{kp} on the length of the half-wave S. To find the least value of the critical stress, the author recommends the construction of a supplementary σ_{kp} graph. G.M. Chuvikin.

DATE ACQ: 31Dec63 SUB CODE: PH ENCL: 00

Card 2/2

KATRANUSKHOV, T.

Katranuskhov, T. Anatomiia na durvoto; uchebnik za I kurs na gorskite tekhnikumi. Sofiya (Narodna prosveta) 1952. 104 p. (Anatomy of wood; a textbook for the first course of schools of forestry.)

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, L. C., VOL. 3, NO. 1, Jan. 1954, Uncl.

KATRANUSHKOV, ".

"Gorsko zakonoznanie za V kurs (VIII kl.) na gorskiia tekhnikum. Sofiya (Narodna prosveta) 1952. 168 p. (Legislation on forestry; a testbook for the fifth course in the technical schools of forestry.)"

SO: East European, L. C. Vol. 2, No. 12, Dec. 1953

STOIMENOV, C.; KATRANUSHKOVA, N.

Problems of toxoplasmosis. Akush. ginek. (Sofiia) 4 no.4:258-266 '65.

1. Nauchno-izsledovatelski institut po akusherstvo i ginekologiia, Sofiia (direktor: doc. E. Svetoslavova).

KATRANUSHKOVA, N.; DOTSEVA, S.

Some studies on candidiasis of the genitalia. Akush. ginek. (Sofiia) 4 no.1:49-53 '65.

1. Nauchno-izsledovatelski institut po akusherstvo i ginekologiia (Direktor: dots. Br. Papazov).

KATRAYEVA, A.G.

Disorder of depth vision in schizophrenia. Trudy Gos.nauch.-issl. inst.psikh. 27:101-107 '61. (MIRA 15:10)

1. TSentral'nyy nauchno-issledovatel'skiy institut sudebnoy psikhiatrii imeni V.P.Serbskogo. Dir. - dotsent G.V.Morozov, 1-ye otdeleniye. Nauchnyy rukovoditel' - prof. S.F.Semenov.
(SCHIZOPHRENIA) (VISION)

KATLAYEV, A.G.

Disorders of depth perception in schizophrenia patients.
Probl. sud. psikh. no.13:136-143 '62.
(MIRA 18:9)

KATRAYN, I.

Country : BULGARIA
Category : Chemical Technology. Chemical Products (Part 3). Food Industry
Abs. Jour. : Ref Zhur-Khim, 1959, No 7, 25247

Author : Katrayn, I.
Institut. :
Title : Introduction of a New Technique in the Canning Industry of Rumania

Orig Pub. : Khranit. prom-st, 1958, 7, No 3, 21-22

Abstract : No abstract.

Card: 1/1

KATRECHKO, V.I., inzh.; KLIMKOVSKAYA, S.S., tekhn.

Austenite electrodes with decreased toxicity. Svar. proizv. no.9: 28 S '65. (MIRA 18:9)

1. Khar'kovskiy zavod transportnogo mashinostroyeniya im. A.A.Malysheva.

SERGIYENKO, N.Ye., inzh.; KATRECHKO, V.I., inzh.; YEVDOKIMOV, K.K., inzh.; LIMARENKO, D.G., inzh.

Utilization of the slag crust from welding fluxes in automatic welding. Svar. proizv. no.4:31-33 Ap '63. (MIRA 16:5)

1. Zavod transportnogo mashinostroyeniya im. Malysheva.
(Electric welding) (Flux (Metallurgy))

KATREFAZH, G.; SABAT'YE, F., ptitsevod (Monpel'ye, Frantsiya); AKOPOVA, K.P. [translator]

Practices in changing some hereditary characters; some interesting observations made on domestic fowl after the transfusion of blood from a different breed. Agrobiologiia n0.1:105-107 Ja-F '63. (MIRA 16:5)

1. Rukovoditel' tekhnicheskoy laboratorii pri Oblastnoy veterinarnoy laboratorii, Monpel'ye, Frantsiya (for Katrefazh).
(Heredity) (Blood—Transfusion) (Poultry—Physiology)

LEBEDEV, A.P., doktor geologo-mineralogicheskikh nauk; YEPIFANTSEVA, A.V.; KATRENKO, A.V., redaktor.

[What stones can tell] O chem rasskazyvaiut kamni. Moskva, Gos. izd-vo tekhniko-teoreticheskoi lit-ry, 1953. 53 p. (Nauchno-populiarnaia biblioteka, no.65) (MLRA 7:7)
(Geology)

KATRENKO, Dmitriy Alekseyevich; SMIRNYAGINA, Aleksandra Andreyevna; KNUNYANTS, I.L., akademik, nauchnyy red.; KORNILOVA, M.I., red.; SHIKIN, S.T., tekhn. red.

[Science outstrips fancy] Nauka, obgoniaiushchaia mechtu. Moskva, Izd-vo VTsSPS Profizdat, 1961. 204 p. (MIRA 15:1)
(Synthetic products)

VEDERNIKOV, Mikhail Ivanovich; RUDOY, Ivan Vasil'yevich; KATRENKO, D.A., nauchnyy red.; LYAKHOVETSKAYA, T.Ye., red.; TOKER, A.M., tekhn. red.

[Operator of compressor and pumping machinery in the chemical industry] Mashinist kompressornykh i nasosnykh ustanovok khimicheskoi promyshlennosti. Moskva, Proftekhizdat, 1963. 374 p. (MIRA 16:9)

(Chemical machinery) (Compressors) (Pumping machinery)

KUZNETSOV, Vladimir Ivanovich; ARBUZOV, A.Ye., akademik, otv. red.; KATRENKO, D.A., red.

[Advances in the field of catalytic organic synthesis] Razvitie kataliticheskogo organicheskogo sinteza. Moskva, Nauka, 1964. 433 p. (MIRA 17:12)

USIK, Gavriil Yevtikhiyevich[Usyk, H.IE.], kand. sel'khoz. nauk;
BUZANOV, I.F., akademik, red.; KATRENKO, K.A., red.;
POTOTSKAYA, L.A.[Pototś'ka, L.A.], tekhn. red.

[Biological principles underlying the cultivation practices for tomatoes in Podolia] Biologichni osnovy agrotekhniky pomidoriv na Podilli. Kyiv, Derzhsil'hospvydav URSR, 1962. 103 p. (MIRA 16:4)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Buzanov).

(Podolia--Tomatoes)

BUGUTSKIY, Aleksey Andreyevich[Buhuts'kyi, O.A.], kand. ekon. nauk; ROMANENKO, I.N., prof., otv. red.; KATRENKO, K.A., red.; LAPCHENKO, K.P., tekhn. red.

[Production cost of grain on collective and state farms in the steppe zone of the Ukraine; statistical economic studies] Sobivartist' vyrobnytstva zerna v kolhospakh i radhospakh stepu URSR; statystyko-ekonomichne doslidzhennia. Kyiv, Derzhsilhospvydav URSR, 1962. 129 p. (MIRA 16:5)

1. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina (for Romanenko).
(Ukraine--Grain--Economic aspects)

VOL'SKIY, V.G.[Vol's'kyi, V.H.], kand. sel'khoz. nauk, red.;
LISIY, G.B.[Lysyi, H.B.], red.; KATRENKO, K.A., red.

[Specialization of agriculture in Gliyany District; western forest-steppe] Spetsializatsiia sil'skoho hospodarstva v Hlinians'komu raioni; zakhidnyi Lisostep. Kyiv, Derzhsil'hospvydav URSR, 1962. 159 p.
(MIRA 17:9)

1. Naukovo-doslidnyy instytut zemlerobstva i tvarynnytstva zakhidnykh rayoniv URSR.

YUKHIMCHUK, F.P.[IUkhymchuk, F.P.], otv. red.; VISHINSKIY, O.M. [Vyshyns'kyi, O.M.], red.; GOLOMBA, R.A.[Holomba, R.A.], red.; DMITRENKO, P.O.[Dmytrenko, P.O.], red.; IL'YASHENKO, M.G.[Illiashenko, M.H.], red.; KOLOBOV, O.M., red.; KUKSIN, M.V., red.; LAZURSKIY, O.V.[Lazurs'kyi, O.V.], red.; POPOV, F.A., red.; SAMBUR, G.M.[Sambur, H.M.], red.; SAMTSEVICH, S.A.[Samtsevych, S.A.], red.; FEDOROVA, N.A., red.; KATRENKO, K.A., red.

[Fertilizers and cultivation practices] Dobryva ta agrotekhnika. Kyiv, Urozhai, 1964. 160 p. (MIRA 17:12)

1. Kiev. Ukrains'kyi naukovo-doslidnyi instytut zemlerobstva.

BUCHINSKIY, Ivan Yevstafiyevich; KATRENKO, Ye.A., red.; VIDONYAK, A.P., tekhn. red.

[Climate of the Ukraine in the past, present and future] Klimat Ukrainy v proshlom, nastoiashchem i budushchem. Kiev, Gossel'khozizdat USSR, 1963. 307 p. (MIRA 17:2)

KATRICH, A., general-leytenant aviatsii, Geroy Sovetskogo Soyuza, voyennyy letchik pervogo klassa

Shift of attention in instrument flying. Av. i kosm. 48 no.9:51-56 S '65. (MIRA 18:8)

KATRICH, Aleksey Trofimovich; KURBATOV, Il'ya Dmitriyevich; SERGEYEVA, V.S., red.

[Business accounting practice within individual production units of a collective farm] Praktika vnutrikolkhoznogo khozrascheta. Moskva, Kolos, 1965. 189 p. (MIRA 18:9)

ROTENBLAT, Grigoriy Boris[illegible]; PODPRUGINKOV, Vasiliy [illegible]; KICHKIN, Viktor Vasil'yevich; LOBASOV, Mikhail [illegible]; KATRICH, Aleksandr Nikolayevich; ZAVOZIN, L.F., [illegible] red.

[High-[illegible] USB-2M [illegible]] [illegible] ustanovka USB-2M. Moskva, Nedra, 1965. [illegible]
(MIRA [illegible])

ROZENBLAT, Grigoriy Borisovich; PODPRUZHNIKOV, Vasiliy Ivanovich; KICHKIN, Viktor Vasil'yevich; LOBASOV, Mikhail Petrovich; KATRICH, Aleksandr Nikolayevich; ZAVOZIN, L.F., ved. red.

[The USB-2m high-speed plow] Bystrokhodnaia strugovaia ustanovka USB-2m. Moskva, Nedra, 1965. 136 p. (MIRA 18:8)

24904

S/181/61/003/006/001/031
B102/B201

9,4175 (1163,1482)

AUTHORS: Katrich, G. A. and Sarbey, O. G.

TITLE: Photoelectron emission by gold and chromium

PERIODICAL: Fizika tverdogo tela, v. 3, no. 6, 1961, 1629 - 1637

TEXT: By way of an introduction, a very detailed discussion is offered on some papers by Thomas, Mayer et al. (H. Thomas, Zs. f. Phys. 147, 4, 395, 1957; H. Mayer, R. Nessek, H. Thomas. J. Phys. Rad. 17, 204, 1956; H. Mayer, H. Thomas. Zs. f. Phys., 147, 4, 419, 1957; A. Ebel. Zs. f. Phys., 147, 4, 465, 1957; S. Methfessel, Zs. f. Phys., 147, 4, 442, 1957), which contain reports on the photoelectron emission of potassium films; the abovementioned authors have stated that photoelectron emission in this metal is of the volume type. The correctness of such a conclusion appears, however, to be dubious, and the problem of the nature of photoelectron emission cannot yet be considered as being definitely solved. The authors of the present paper have therefore again studied the phenomenon of photoelectron emission. They chose gold and chromium for their purposes, because the excitation energy of "plasmons" in these metals is considerably higher

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Photoelectron emission ...

(>20 ev) than the energy of photoelectrons in the spectral region concerned. Photocurrents as a function of thickness were measured at different light wavelengths by an apparatus which is shown in Fig. 3. The film of variable thicknesses that were submitted to investigation were sputtered onto a mobile quartz base (2) by a spherical vaporizer (1). The base could be either arranged above the BaO vaporizer (5) or in front of the uviol glass windows (4) (for the purpose of photoelectric or optical measurements). The film was adjusted to the desired position by means of ruler (6) and indicator (3). The residual gas pressure in the tube could be kept at $3 - 5 \cdot 10^{-9}$ mm Hg by the diffussion pump (7) and the barium getter (8). Both apparatus and method have been repeatedly described elsewhere (cf. also C. Moore, . W. Allison. Phys. Rev. 77, 247, 1950) Pure surfaces of the metals concerned were obtained by sputtering films upon metallic backings (tungsten or tantalum); here, the maximum pressures were at $5 \cdot 10^{-8}$ (Au) and $3 \cdot 10^{-7}$ mm Hg (Cr) The effect of adsorbed BaO was examined first. The volt-ampere characteristics obtained showed the maximum change of the thermo-electronic work function, that depended on BaO adsorption, to be about 3.2 - 3.4 ev for gold and 2.8 ev for chromium. The effect of BaO adsorbed on Au and Cr films was

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Photoelectron emission ...

considerable in some cases; the effect was not restricted upon the work function. In case of thicker BaO coatings on Au films the characteristics had fully the appearance of BaO characteristics. For gold, the quantum yield of photoemission was larger compared with a pure metal surface even with a reduced work function for hν=5ev. The work functions of pure metal surfaces amount to 5.1 (Au) and 4.4 ev (Cr), the work functions for an optimum BaO adsorption on the films amount to 1.8 and 1.7 ev, respectively. A study of the photocurrent as a function of thickness showed the gold photoelectrons to come from a depth <7 mμ, and the chromium ones from a depth <3.5 mμ, i.e., the depth dependence of photoelectrons on the photon energy to be expected for a volume photoeffect is present at these slight depths only. For longer waves (the data are valid in the range 248 - 435mμ) these depths are even smaller. Results indicate that either a surface photoeffect of very high electron energy losses on very short paths are involved here. The data on quantum yield and light absorption cannot prove the surface character of the photoeffects. The experiments have been conducted at the laboratory of Professor P. G. Borzyak, to whom the authors express their gratitude.

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24904 S/181/61/003/006/001/031
B102/B201

Photoelectron emission ...

There are 9 figures and 12 references: 5 Soviet-bloc and 7 non-Soviet-bloc.

ASSOCIATION: Institut fiziki AN USSR Kiyev (Institute of Physics AS UkrSSR, Kiyev)

SUBMITTED: October 28, 1960

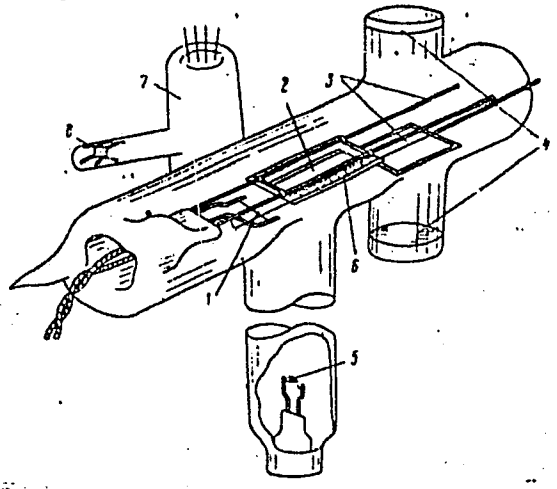

Fig. 3

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L 27738-66 EWI(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6001597 SOURCE CODE: UR/0120/65/000/006/0213/0214

AUTHOR: Katrich, G. A. 39

ORG: Institute of Physics of AN UkrSSR, Kiev (Institut fiziki) B

TITLE: Method of cleaning germanium surfaces

SOURCE: Pribory i tekhnika eksperimenta, no. 6, 1965, 213-214

TOPIC TAGS: germanium, crystal surface

ABSTRACT: A method of cleaning surfaces of germanium crystals is described. The method was based on the difference existing between the expansion coefficients of tin and germanium. If a germanium crystal with a soldered tin coating is submitted to a quick-cooling process, the tin coat breaks off and takes away a 0.1 to 0.2 mm layer from the germanium crystal leaving a clean surface. The tin coating layer was 1 to 2 mm thick. The cross-section of germanium crystals varied from 1 x 2 to 1 x 10 sq mm. The method of preparation was briefly explained and the device used for cooling process was illustrated. Orig. art. has: 1 figure.

SUB CODE: 20 / SUBM DATE: 31Oct64 / ORIG REF: 001 / OTH REF: 003

Card 1/1 UDC: 621.315.592

L 1312-66 EWT(1)/EWT(m)/EWP(t)/EWP(b) IJP(c) JD

ACCESSION NR: AP5012541 UR/0181/65/007/005/1352/1361

AUTHOR: Katrich, G. A.; Sarbey, O. G.; Tarashchenko, D. T.

TITLE: Surface conductivity of gold-doped germanium

SOURCE: Fizika tverdogo tela, v. 7, no. 5, 1965, 1352-1361

TOPIC TAGS: germanium, semiconductor conductivity, Hall effect, temperature dependence

ABSTRACT: This is a continuation of earlier work by the authors (FTT v. 5, 3321, 1963), where it was found that by shaving the surface its conductivity in compensated germanium doped at low temperatures can be made much larger than the volume conductivity. The present investigation was devoted to the temperature dependence of the surface conductivity, to the Hall effect, and to the influence of the crystallographic orientation of the conductivity of a germanium surface obtained by cleavage in vacuum. The temperature dependence of the surface conductivity was measured in a special vacuum instrument in the temperature interval from 60 to 190K. The experimental details were described in the already cited paper and also in a later paper (FTT v. 6, 2249, 1964). The result showed that the volume conductivity does not come into play until 125K. The Hall mobility was measured on a surface cleaved on the crystal by a low-temperature shrinkage technique, at temperatures of

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L 1312-66
ACCESSION NR: AP5012541

liquid oxygen, liquid nitrogen, and liquid-nitrogen evaporation. The sign of the Hall mobility indicates that the surface conductivity is due to holes. Measurements on surfaces cut in different crystallographic orientations have shown that the conductivity in the (100) direction is generally lower (100 micromho) than the conductivity in the (111) and (110) directions (200 micromho). The theoretical reasons for the increase for the surface conductivity are discussed. Comparison of the measured and theoretical conductivities indicates that a high degree of degeneracy takes place at the surface (5--10 kT above the Fermi level). The theory of J. R. Schrieffer (Phys. Rev. v. 97, 641, 1965) is modified to explain the experimental facts. "This work was performed in the laboratory of Professor P. G. Borzyak, to whom the authors are grateful for a diccussion of the results." Orig. art. has: 9 figures and 17 formulas.

ASSOCIATION: Institut fiziki AN UkrSSR, Kiev (Institute of Physics, AN UkrSSR)

SUBMITTED: 22Oct64 ENCL: 00 SUB CODE: SS

NR REF SOV: 003 OTHER: 006

Card 2/2

L 8851-66 EWT(l)/EWT(m)/T/EWP(t)/EWP(b)/EWA(h) IJP(c) JD/AT

ACC NR: AP5022727 SOURCE CODE: UR/0181/65/007/009/2803/2808

44,55 44,55 44,55

AUTHOR: Brozyak, P. G.; Katrich, G. A.; Sarbey, O. G.

44,55

ORG: Institute of Physics AN UkrSSR, Kiev (Institut fiziki AN UkrSSR)

TITLE: Effect of light on the surface conductivity of germanium with a clean surface

SOURCE: Fizika tverdogo tela, v. 7, no. 9, 1965, 2803-2808

21,44,55 21,44,55

TOPIC TAGS: germanium, semiconductor, photoconductivity, surface property, absorption edge

ABSTRACT: Previous studies have shown that compensated split specimens of gold-doped germanium display a surface conductivity which considerably exceeds the volume conductivity at low temperatures. The authors describe the changes in conductivity and various other phenomena which take place when this type of surface is illuminated in the region of natural absorption for germanium, in particular the negative photoconductivity which occurs at the natural absorption edge. Curves are given for the change in conduction current under illumination as a function of wavelength, and for the spectral characteristics of photocurrent in specimens with negative photoconductivity. Analysis shows that the change in photoconductivity under illumination is the result of two effects: a positive and a negative effect with different time lags. Illumination of the clean surface of a specimen often resulted in a reduction in cur-

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L 8851-66

ACC NR: AP5022727

7

rent through the crystal, i. e. negative photoconductivity, in the spectral region adjacent to the natural absorption edge on the short wave side. Curves are given for this effect in gold- and nickel-doped crystals. Oscillograms taken during illumination by square light pulses show that the nature of relaxation curves is considerably dependent on wavelength. Analysis of curves for negative stationary photoconductivity as a function of illumination intensity for a clean surface and for the same relationship with respect to positive photoconductivity in a specimen with an oxidized surface indicates that transition from negative to positive photoconductivity may take place under strong incident illumination. It was found that the stationary negative photoconductivity is considerably dependent on the surface conductivity. A model is proposed to explain the negative photoconductivity observed in these specimens. This model may also explain the energy position occupied by surface levels. It is pointed out that further research is needed to definitely establish the mechanism responsible for the observed phenomena. The authors thank P. M. Tomchuk and O. V. Snitko for a number of useful discussions. Orig. art. has: 6 figures. 44,55 44,55

SUB CODE: 20/ SUBM DATE: 19Apr65/ ORIG REF: 003/ OTH REF: 001

BVK

Card 2/2

KATRICH, G.A. [Katrych, H.A.]

Field effect on a pure silicon surface. Ukr. fiz. zhur. 10 no.9: 1038-1041 S '65. (MIRA 18:9)

1. Institut fiziki AN UkrSSR, Kiyev.

KATRICH, G.A.; SARBEY, O.G.

Surface conductivity of germanium alloyed with gold. Fiz. tver. tela 5 no.11:3321-3322 N '63. (MIRA 16:12)

1. Institut fiziki AN UkrSSR, Kiyev.

SARBEY, O.G. [Sarbei, O.H.]; KATRICH, G.A. [Katrych, H.A.]

Photoelectronic emission from dispersed silver films.
Ukr. fiz. zhur. 6 no.3:418-420 My-Je '61. (MIRA 14:8)

1. Institut fiziki AN USSR, g. Kiyev.
(Silver)
(Electrons—Emission)

BORZYAK, P.G.; KATRICH, G.A.; SARBEY, O.G.

Electron emission from CdS during current flow. Fiz.tver.tela 3 no.7:2186-2188 Jl '61. (MIRA 14:8)

1. Institut fiziki AN USSR, Kiyev.
(Electrons--Emission) (Cadmium sulfide)

KATRICH, G.A.; SARBEY, O.G.; TARASHCHENKO, D.T.

Surface conductivity of Au-doped Ge. Fiz. tver. tela 7 no.5:1352-1361 My '65. (MIRA 18:5)

1. Institut fiziki AN UkrSSR, Kiyev.

M

Country :USSR
Category :CULTIVATED PLANTS. COMMERCIAL. Oleiferous. Sugar-Bearing
Abs. Jour. : REF ZHUR-BIOL.,21,1958,NO-96057

Author :Katrich, G.I.
Institut. :
Title :Agricultural Methods for Oleiferous Crops on the Non-Irrigated Plots in South Kazakhstan

Orig. Pub. :V sb.: Maslichn. kul'tury v vost. r-nakh SSSR. Krasnodar. "Sov. Kuban'", 1956, 102-107

Abstract : It was established at Krasnovodopadskaya Selection Station that on a half watered plot the highest yields were gotten from safflower (5.03 centners per hectare). Flax and sunflowers can be raised in the zone of fully provided waterless plots. Deep fall plowing (to a depth of 30 cm) under safflower and sunflower was more effective than plowing 20 cm deep or double stubble plowing. The best time for planting the safflower is January-February.

Card: 1/2

Country :
Category : CULTIVATED PLANTS. COMMERCIAL M
Abs. Jour. : REF ZHUR-BIOL.,21,1958,NO-96057
Author :
Institut. :
Title :

Orig. Pub. :

Abstract : for sunflowers - February to the beginning of March and for flax - in the first half of March. Dense safflower drillings give higher yields than wide row plantings. The application of organic-mineral fertilizers increased the safflower yield by 1.61 centners per ha.--O.P. Plyusnina

Card: 2/2

KATRICH G. I.

USSR / Soil Science. Cultivation. Melioration, Erosion. J

Abs Jour: Ref Zhur-Biol., No 21, 1958, 95777.

Author : Katrich, G.
Inst : Not given.
Title : Cultivation of Soil Under Wheat in Dry-Land Farming Without Previous Fallow Crops.

Orig Pub: S kh. Kazakhstana, 1958, No 2, 28-29.

Abstract: No abstract.

Card 1/1

KATRICH, G. I.

Get specialists interested. Nauka i pered.op.v sel'khoz. 9 no.12:59-60 D '59. (MIRA 13:4)

1.Zaveduyushchiy otdelom zemledeliya Krasnovodopadskoy gosudarstvennoy selektsionnoy stantsii.
(South Kazakhstan Province--Agriculture)

L 23566-66 EWT(m)/T/EWP(t)/EWA(h) JD/HW/GS

ACC NR: AT6008852 SOURCE CODE: UR/0000/65/000/000/0130/0136

.70
B+1

AUTHOR: Borovik, Ye. S.; Katrich, N. P.; Nikolayev, G. T.

ORG: none

TITLE: Vaporization of stainless steel by H_1^+ ions and penetration of these ions into the surface 18 18

SOURCE: AN UkrSSR. Magnitnyye lovushki (Magnetic traps). Kiev, Naukova, dumka, 1965, 130-136

TOPIC TAGS: hydrogen, stainless steel, vaporization, charged particle

ABSTRACT: The authors studied the vaporization coefficient for stainless steel bombarded by H_1^+ ions as well as the penetration factor for these ions. A diagram of the measurement chamber is shown in the figure. Before bombardment, the target was degassed by heating to approximately 400°C for three hours. Target 3 (made from 1X18N9T stainless steel) is fastened in holder 4. The target holder is insulated from the measurement chamber by a glass junction so that the ion current may be measured directly during bombardment of the target. The target was heated simultaneously with the measurement chamber by an external heater to approximately 300°C for three hours. Collector 6 (made from 0.05 mm aluminum foil) is a truncated cone with a diameter of 35 mm at the base and 24 mm at the apex. The collector is 70 mm long and is protected from the ion beam by screen 5 (made from stainless steel). A hydrogen condensation

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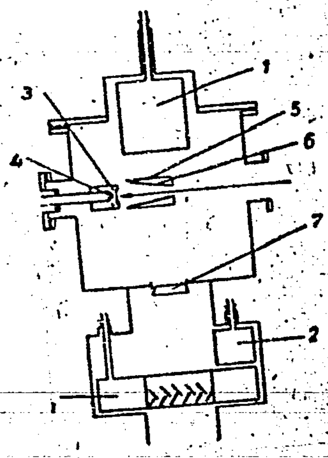
ACC NR: AT6008852

pump was used for evacuating the measurement chamber during degassing. After heating, liquid helium was poured into the helium condensation pumps and liquid hydrogen was poured into hydrogen condensation pump *1*. The measurement chamber was then disconnected from hydrogen condensation pump *2* by heated metal valve *7*. This method gave a final pressure of no more than $1 \cdot 10^{-9}$ mm Hg. A beam of 35 kev H_1^+ ions incident on target *3* was electrically recorded by applying a blocking potential across collector *6*. The current of the ion beam was ordinarily 100--180 μa. The hydrogen ions penetrate part way into the target as they strike and the vaporized metal of the target is accumulated by the collector. The following formulas are given for calculating the coefficient of vaporization α and the penetration factor η:



$$\alpha = \frac{\Delta P_c}{9.3 \cdot 10^{-23} l/qt}, \qquad \eta = \frac{\Delta P_k + \Delta P_m}{1.67 \cdot 10^{-24} l/qt},$$

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ACC NR: AT6008852

where ΔP_t is the reduction in the weight of the garget; ΔP_a is the increase in the weight of the collector; i is the current of the H_1^+ ion beam in amperes; q is the charge of an electron in coulombs; t is the time of target bombardment in seconds; $9.3 \cdot 10^{-23}$ is the weight of a single iron atom in grams and $1.67 \cdot 10^{-24}$ is the weight of a single hydrogen atom in grams. The results show a coefficient of $9 \cdot 10^{-3}$ for vaporization of stainless steel by H_1^+ ions with an energy of 35 kev, and a penetration factor of 0.5. Orig. art. has: 2 figures, 1 table, 2 formulas.

SUB CODE: 20/11/ SUBM DATE: 20Oct65/ ORIG REF: 004/ OTH REF: 002

Card 3/3

ACC NR: AP7000784 (N) SOURCE CODE: UR/0089/66/021/005/0339/0345

AUTHOR: Borovik, Ye. S.; Katrich, N. P.; Nikolayev, G. T.

ORG: none (deceased)

TITLE: Interaction of fast H_1^+ ions with the surface of metals in ultrahigh vacuum

SOURCE: Atomnaya energiya, v. 21, no. 5, 1966, 339-345

TOPIC TAGS: ultrahigh vacuum, metal surface impregnation, hydrogen ion, ion bombardment, nickel, stainless steel, tantalum, titanium

ABSTRACT: In view of the absence of data on the sputtering of metals in ultrahigh vacuum, and the accompanying penetration of fast particles into metals, such as occur in magnetic traps used for plasma research, the authors have investigated the interaction of fast hydrogen ions H_1^+ with nickel and stainless steel, which form weak chemical bonds with hydrogen, and with metals such as tantalum and titanium, which form strong chemical bonds. The coefficient of sputtering of stainless steel by 35-kev H_1^+ ions (α) and the penetration coefficient of H_1^+ in stainless steel (η) were determined under conditions of superhigh vacuum by a weighing method, using a system of hydrogen and helium condensation pumps and other equipment described in detail elsewhere (Atomnaya energiya v. 18, 91, 1965). The values obtained for α and η are 9×10^{-3} and 0.5 at intruder hydrogen concentrations greatly exceeding 10^{19} atoms/cm^2. The dependence of η on the density of the intruder hydrogen and on the temperature of the metal was measured by varying the pressure. The results lead to the conclusion

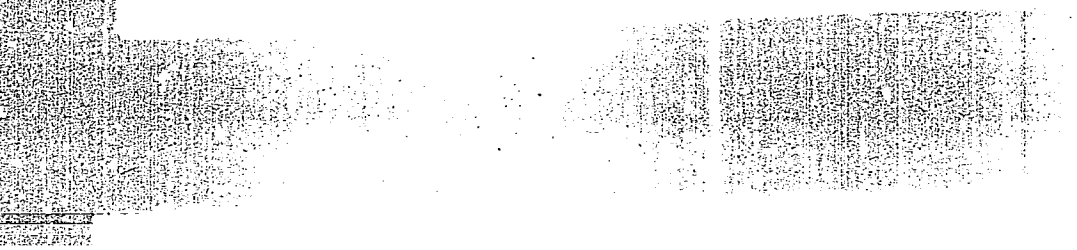
Card 1/2 UDC: 532.6: 533.9

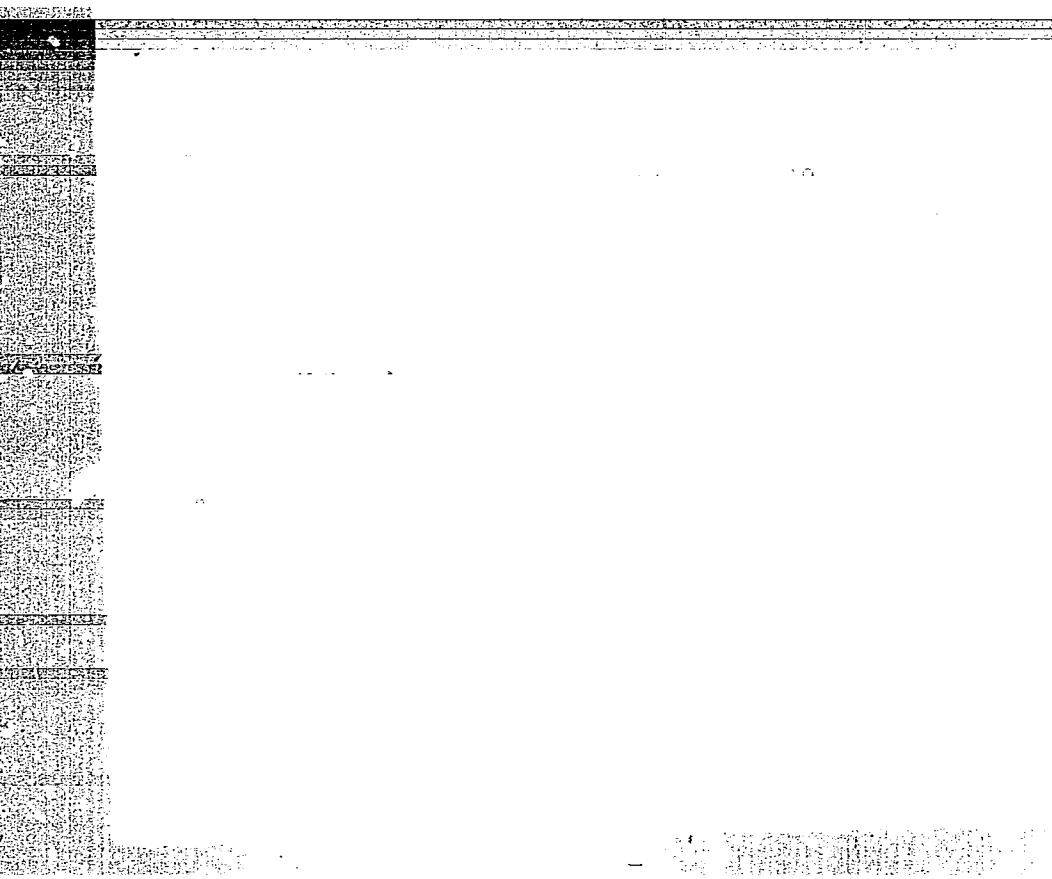
ACC NR: AP7000784

that the maximum coefficient of penetration and the maximum gas absorbing capacity is possessed by metals such as titanium, which forms strong chemical bonds with hydrogen. It is advisable to use these metals for binding fast particles in magnetic traps. At low concentration of the intruded hydrogen, the number of reflected atoms probably does not exceed several per cent for all the metals investigated. At low temperatures, the curves of η for all the investigated metals were practically the same. At normal temperatures, η did not decrease for titanium and tantalum, but decreased for stainless steel by a factor of two and for nickel by a factor of three. At high temperatures and low concentrations of the intruded hydrogen, η decreases rapidly (to 0 - 15%) for all the investigated metals. Orig. art. has: 6 figures, 4 formulas, and 1 table.

SUB CODE: 11, 20/ SUBM DATE: 01May66/ ORIG REF: 005

Card 2/2





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KOVYNEV, M.V., inzh.; ZELICHENOK, B.Yu., inzh.; GERTSEV, A.I., inzh.; FIDEL', E.L., inzh.; KATRICHENKO, K.P., inzh.

Effect of certain technological factors of rolling on a 2,800 two-high mill on the shape of the piece. Stal' 24 no.11:1009-1013 N '64. (MIRA 18:1)

Katrina, [1]

L-2

RUMANIA / Cultivated Plants.

Abs Jour : Ref Zhur - Biol., No 6, March 1957, No 22675

Author : Lupe, Katrina, Marku

Inst : Not given

Title : The Effect of Forest Protective Strips on Wheat and Rye Crops in Beregan and Dubrudzhe in 1952-1953

Orig Pub : Bul. stiint. Acad. RPR. Sec. biol. si stiinte agric., 1956, 8, No 1, 199-208

Abstract : In years of normal weather conditions the wheat crop increase on sections protected by forest strips in the Dubrudzhe steppe amounted to 350 kg/hectare, which constituted an increase of 20 percent, and in Beregan -- 550 kg/hectare, or 50 percent higher by comparison with crops in open fields. The oat crop increase in Beregan was 150 kg/hectare, or 18

Card : 1/2

RUMANIA / Cultivated Plants L-2

Abs Jour : Ref Zhur - Biol., No 6, March 1957, No 22676

Abstract : percent. Immediately adjacent to the strip, at a distance up to 16 m., the yield of wheat is lower than in the open field. This did not occur on oat sowings, which tolerate shade better than wheat. It is recommended that the interstrip distances be limited to 250-300 m.

Card : 2/2

KATRINA, K.

RUMANIA / Chemical Technology. Fats and Oils. Waxes. Soaps. Washing Agents. Flotation Reagents. H

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 75335.

Author : Katrina, Katrina.
Inst : Inst. agron.
Title : The Utilization of Fruits of Wild Chesnut (Aesculis Hippocastanum)

Orig Pub: Anaural lucrar. stiint. Inst. agron. Timisoara, Bucresti. 1957, 215-227.

Abstract: The oil is extracted from the pulp with benzene and then the extraction is made with 80% alcohol. As a result, crude saponin is obtained, which after being evaporated to dryness, yields technical saponin. From an

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RUMANIA/Chemical Technology. Fast and Oils. Waxes. Soaps. Washing Agents. Flotation Reagents. H

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 75335.

Abstract: aqueous solution of the latter, both saponin fractions (the acidic and the neutral — saponotoxin) are precipitated by 95% alcohol. Starch is processed into alcohol (51% yield) and lactic acid (67-68% yield). From grist one obtains butanol and acetone (31-32% yield). The technological scheme for the industrial processing of fruits, and the physicochemical indices of refined oil are furnished, including 51 references.

Card 2/2 52

KATRINA, I

RUMANIA / Forestry. General Problems. K

Abs Jour: Ref Zhur-Bio., No 7, 1958, 29516.

Author : Katrina, I.
Inst : Not given.
Title : The Balance of Moisture in Nature and Its Role in Forest Plantations. (Balans vlagi v prirode i yego rol' v lesnykh nasazhdeniyakh).

Orig Pub: Rev. Padurilor, 1957, 71, No 6, 377-381.

Abstract: No abstract.

Card 1/1

33

CERVINKA, O.; KATRITZKY, A.R.

Reactions of enamines. Pt.10. Coll Cz Chem 30 no.5:1736-1738 My '65.

1. Department of Organic Chemistry of the Institute of Chemical Technology, Prague. Submitted August 18, 1964.

Katrovskiy, G. F.

Bee Culture-Queen Rearing

"Method to settle a queen in the bee colony with full guarantee of her acceptance." Pchelovodstvo, 29, No. 5., 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 2 1953, Uncl.

USSR / Farm Animals. Honey Bee

Q

Abs Jour: Ref Zhur-Biol., No 5, 1958, 21538

Author : Katrovskiy G. F.
Inst :
Title : How I Prevent the Swarming of Bees (Kak ya predup-rezhdayu royeniye pchel)

Orig Pub: Pchelovodstvo, 1957, No 6, 51-52

Abstract: Swarming is prevented by the timely enlarging of the nests and the upsetting of the completeness of the nest. This action stirs the bees, immediately inciting them to reconstruct the nest. By this method, the author avoided the swarming of the strong families for a number of years.

Card 1/1

STEPANOV, V.M.; SILAYEV, A.B.; KATRUKHA, G.S.

Molecular weight of polymyxin M. Biokhimiia 25 no.4:749-757 Jl-Ag '60. (MIRA 13:11)

1. Laboratory of Protein Chemistry and Antibiotics, Chemical Faculty, the State University, Moscow.
(POLYMYXINS)

KATRUKHA, G. S., YULIKOVA, YE. P., KUZMINA, N. A., SILAYEV, A. B. (USSR)

"Mechanism of Polymixin M Inactivation."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 August 1961

SILAYEV, A.B.; KATRUKHA, G.S.; STEPANOV, V.M.

Determination of the number of amino groups in kanamycin, mycerin and colimycin. Biokhimiia 26 no. 1:10-12 Ja-F '61. (MIRA 14:2)

1. Laboratory of Protein Chemistry and Antibiotics, Chemical Faculty, the State University, Moscow.
(ANTIBIOTICS) (AMINO GROUP)

KATRUKHA, G.S.; SILAYEV, A.B.

Determination of the number of free carboxyl groups in amino acids and peptides by a partial substitution method. Biokhimiia 26 no.5: 872-876 S-O '61. (MIRA 14:12)

1. Laboratory of Chemistry of Proteins and Antibiotics, Chemical Faculty of the State University, Moscow.
(AMINO ACIDS) (PEPTIDES)
(CARBOXYL GROUP)

SILAYEV, A.B.; KATRUKHA, G.S.; KUZ'MINA, N.A.

Intramolecular transformations of N-acyl derivatives of α,γ -diaminobutyric acid. Zhur.ob.khim. 31 no.9:3111-3115 S '61. (MIRA 14:9)

(Butyric acid)

SILAYEV, A.B.; KATRUKHA, G.S.

Number of free amino and carboxyl groups in the antibiotic actinoidin. Antibiotiki 7 no.5:456-460 My '62. (MIRA 15:4)

1. Laboratoriya khimii belka i antibiotikov khimicheskogo fakul'teta Moskovskogo universiteta imeni Lomonosova.
(AMINO GROUP) (ACTINOIDIN) (CARBOXYL GROUP)

KATRUKHA, G.S.; SILAYEV, A.B.; STEPANOV, V.M.

New method for determining the number of amino groups in antibiotics. Biokhimiia 26 no.4:649-654 Jl-Ag '61. (MIRA 15:6)

1. Laboratory of Protein Chemistry and Chemistry of Antibiotics, Chemical Faculty, State University, Moscow.
(ANTIBIOTICS)
(AMINO GROUP)

KATRUKHA, G.S.; STEPANOV, V.M.; SILAYEV, A.B.

Use of carbobenzoxy derivatives for the quantitative determination of free amino groups in some antibiotics. Antibiotiki 6 no.8: 681-685 Ag '61. (MIRA 15:6)

1. Laboratoriya khimii belka i antibiotikov Khimicheskogo fakul'teta Moskovskogo universiteta imeni Lomonosova.
(ANTIBIOTICS) (AMINO GROUP)

KATRUKHA, G.S.; SILAYEV, A.B.; KHARTSKHAYEVA, S.V.

Potassium 4-chloro-3,5-dinitrobenzenesulfonate, a new reagent for the quantitative determination of amino groups in antibiotics by the partial substitution method. Biokhimiia 27 no.3:549-556 My-Je '62. (MIRA 15:8)

1. Laboratory of Chemistry of Protein and Antibiotics, State University, Moscow.
(AMINO GROUP) (ANTIBIOTICS) (CHEMICAL TESTS AND REAGENTS)

SILAYEV, A.B.; KATRUKHA, G.S.; KUZ'MINA, N.A.

Mechanism of the inactivation of polymyxin M. Comparative study of some properties of active and inactivated polymyxin. Antibiotiki 7 no.8:703-708 Ag '62. (MIRA 15:9)

1. Laboratoriya khimii belka i antibiotikov kafedry organicheskoy khimii khimicheskogo fakul'teta Moskovskogo gosudarstvennogo universiteta.

(POLYMYXIN)

KATRUKHA, G.S.; SILAYEV, A.B.

Determination of the number of free hydroxy groups in some biological objects by the method of partial substitution. Biokhimiia 27 no.4: 608-614 Jl-Ag '62. (MIRA 15:11)

1. Laboratory of Protein Chemistry and Antibiotics, State University, Moscow.
(SUGARS) (HYDROXY COMPOUNDS) (PEPTIDES)

SILAEV; A.B. [Silayev, A.B.]; FEDOSEEVA, N.V. [Fedoseyeva, N.V.]; KATRUKHA, G.S.; ANDREEVA, L.I. [Andreyeva, L.I.]; KOZLOV, L.V.

Preparation and properties of some L-α,γ-diaminobutyric acid peptides. Coll Cz Chem 27 no.9:2240 S '62.

1. Moscow State University, U.S.S.R. (for Silaev and Fedoseeva).

ZHARIKOVA, G. G.; SAVCHENKO, G. V.; MIRONOVA, L. A.; SILAYEV, A. B.; KATRUKHA, G. S.

"Antibiotic production by four dissociation forms of bac. brevis var. GB."

report submitted for Antibiotics Cong, Prague, 15-19 Jun 64.

Lab of Antibiotics, Faculty of Soil Biology, Moscow State Univ.

KATRUKHA, G.S.; SILAYEV, A.B.; KATRUKHA, S.P.

Determination of the number of free SH-groups in amino acids and peptides by the method of partial substitution. Biokhimiia 29 no.5:873-877 Jl-Ag '64. (MIRA 18:11)

1. Laboratoriya khimii belka i antibiotikov khimicheskogo fakul'teta Gosudarstvennogo universiteta imeni Lomonosova, Moskva.

KATRUKHA, G.S.; SILAYEV, A.B.; KATRUKHA, S.P.

Determination of the number of free SH-groups in amino acids and peptides by the method of partial substitution. Biokhimiia 29 no.5:873-877 Jl-Ag '64. (MIRA 18:11)

1. Laboratoriya khimii belka i antibiotikov khimicheskogo fakul'teta Gosudarstvennogo universiteta imeni Lomonosova, Moskva.

INOZEMTSEV, A.I., inzh. (g.Angarsk); GAFNER, Ye.R. (g.Angarsk); KATRUKHA, V.V., inzh. (g.Krasnovodsk); IVANOV, I.I., kand.tekhn.nauk (Moskva); LEBED', A.G., inzh. (Moskva)

Principal trends in the plan for overall electrification. Elektrichestvo no. 12:82-84 D '60. (MIRA 14:1)
(Electrification)

KATRUKHA, V.V., inzh.

Experience in the use of outdoor boiler systems. Prom.energ. 17 no.5:21-23 My '62. (MIRA 15:5)
(Krasnovodsk--Electric power plants)

S/137/62/000/003/065/191
A006/A101

1.1600

AUTHORS: Fedorchenko, I. M., Vinogradov, G. A., Katrus, O. A.

TITLE: Investigating the properties of strips manufactured from iron powder

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 41, abstract 3G285 ("Poroshk. metallurgiya", 1961, no. 4, 70 - 79, English summary)

TEXT: This is a literature review of data on the optimum density of raw strips, the duration of strip sintering, and anisotropy of properties. Experiences have shown that the optimum porosity of raw Fe-powder strips is 20 - 25%; σ_b and σ_{bi} are about 0.5 and 2.8 kg/mm , respectively. Tests were made with rolled specimens, cut out along and across the direction of rolling. The tests show that σ_{bi} was 3.2 kg/mm^2 in the former and 2.5 kg/mm^2 in the latter case (porosity 25%). During sintering the substantial increase in strength is exhausted at holding for about 10 minutes. The effect of compressive rolling on the physical and mechanical properties was investigated. The change in the specific weight ceases at the reduction in height of the strips by about 40%. From this moment approximately the strength begins to decrease and elongation of grains is observed in the microstructure. Conditions of preliminary sintering have a slight effect on the

Card 1/2